

Amendments to the Claims

1. **(Currently Amended)** A simultaneous recording and reproduction apparatus comprising:

an encoder ~~which encodes~~ operable to encode first input signals to provide a first data stream;

a first buffer memory ~~which accumulates~~ operable to accumulate the first data stream encoded by said encoder;

a data recorder ~~which records~~ operable to record the first data stream read from said first buffer memory to a recording medium;

a data reproducer ~~which reproduces~~ operable to reproduce the first data stream, which has been recorded previously to the recording medium, as a second data stream;

a second buffer memory ~~which accumulates~~ operable to accumulate the second data stream read from said data reproducer;

a decoder ~~which reads~~ operable to read the second data stream from said second buffer memory and ~~encodes it as~~ decode the second data stream to provide second signals; and

a system controller ~~which sets~~ operable to set a coding rate for the first signals in said encoder;

wherein said system controller ~~controls~~ is also operable to control said data recorder and said data reproducer to perform recording and reproduction alternately in time, and

wherein when a simultaneous recording and reproduction mode is set ~~wherein~~ whereby recording of the first signals and reproduction of the second signals are performed ~~at the same~~ alternately in time, said system controller sets the coding rate of said encoder to a value smaller than that in a normal recording mode ~~wherein~~ whereby only the first signals are recorded.

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2. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 1, wherein said system controller sets the coding rate in said encoder in the simultaneous recording and reproduction mode to be equal to or smaller than a half of that in the normal recording mode.

3. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 1, ~~wherein~~ further comprising a head operable to perform the recording and the reproduction for the recording medium ~~are performed by a head.~~

4. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 1, wherein the first and second data streams ~~are obtained as code data on~~ of visual or audio signals.

5. **(Original)** The simultaneous recording and reproduction apparatus according to claim 1, wherein the recording medium is an optical disk.

6. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 1, wherein said system controller ~~updates~~ is operable to update management data ~~on~~ of data recorded in the recording medium between the recording and the reproduction.

7. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 1, wherein said system controller inhibits alternating the ~~alternate~~ recording and the reproduction when a recording position ~~by~~ of said data recorder is separated from a reproduction position ~~by~~ of said data reproducer by more than a predetermined distance.

8. **(Currently Amended)** A simultaneous recording and reproduction apparatus comprising:

an encoder ~~which encodes~~ operable to encode first input signals to provide a first data stream;

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a first buffer memory ~~which accumulates~~ operable to accumulate the first data stream encoded by said encoder;

a data recorder ~~which records~~ operable to record the first data stream read from said first buffer memory to a recording medium;

a data reproducer ~~which reproduces~~ operable to reproduce the first data stream, which has been recorded previously to the recording medium, as a second data stream;

a second buffer memory ~~which accumulates~~ operable to accumulate the second data stream read from said data reproducer;

a decoder ~~which~~ operable to read the second data stream from said second buffer memory and ~~encodes it as~~ decode the second data stream to provide second signals; and

a system controller ~~which sets~~ operable to set a coding rate for the first signals in said encoder;

wherein said system controller ~~controls~~ is also operable to control said data recorder and said data reproducer to perform recording and reproduction alternately in time, and

wherein when a simultaneous recording and reproduction mode is set ~~wherein~~ whereby recording of the first signals and reproduction of the second signals are performed ~~at the same~~ alternately in time, said system controller sets the coding rate in said encoder so that a sum of a recording rate and a reproduction rate in a predetermined period is smaller than a predetermined bit rate.

9. **(Original)** The simultaneous recording and reproduction apparatus according to claim 8, wherein the encoding by said encoder is variable bit rate encoding.

10. **(Original)** The simultaneous recording and reproduction apparatus according to claim 8, wherein the first and second signals are visual or audio signals.

11. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 8, further comprising a head operable to perform ~~wherein the~~ recording and the reproduction for the recording medium ~~are performed by a head~~.

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12. **(Original)** The simultaneous recording and reproduction apparatus according to claim 8, wherein the first and second data streams are obtained by encoding visual or audio signals.

13. **(Original)** The simultaneous recording and reproduction apparatus according to claim 8, wherein the recording medium is an optical disk.

14. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 8, wherein said system controller ~~updates~~ is operable to update management data ~~on~~ of data recorded in the recording medium between the recording and the reproduction.

15. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 8, wherein said system controller inhibits alternating the ~~alternate~~ recording and the reproduction when a recording position ~~by~~ of said data recorder is separated from a reproduction position ~~by~~ of said data reproducer by more than a predetermined distance.

16. **(Currently Amended)** A simultaneous recording and reproduction apparatus comprising:

an encoder ~~which encodes~~ operable to encode first input signals to provide a first data stream;

a first buffer memory ~~which accumulates~~ operable to accumulate the first data stream encoded by said encoder;

a data recorder ~~which records~~ operable to record the first data stream read from said first buffer memory to a recording medium;

a data reproducer ~~which reproduces~~ operable to reproduce the first data stream, which has been recorded previously to the recording medium, as a second data stream;

a second buffer memory ~~which accumulates~~ operable to accumulate the second data stream read from said data reproducer;

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a decoder ~~which reads~~ operable to read the second data stream from said second buffer memory and ~~encodes it as~~ decode the second data stream to provide second signals; and

a system controller ~~which sets~~ operable to set a coding rate for the first signals in said encoder;

wherein said system controller ~~controls~~ is also operable to control said data recorder and said data reproducer to perform recording and reproduction alternately in time, and

wherein said encoder performs encoding at a variable bit rate and decreases a bit rate for encoding when ~~it detects that~~ said first buffer memory is going to overflow.

17. **(Original)** The simultaneous recording and reproduction apparatus according to claim 16, wherein the first and second signals are visual or audio signals.

18. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 16, further comprising a head operable to perform ~~wherein the recording and the reproduction for the recording medium are performed by a head.~~

19. **(Original)** The simultaneous recording and reproduction apparatus according to claim 16, wherein the first and second data streams are obtained by encoding visual or audio signals.

20. **(Original)** The simultaneous recording and reproduction apparatus according to claim 16, wherein the recording medium is an optical disk.

21. **(Currently Amended)** The simultaneous recording and reproduction apparatus according to claim 16, wherein said system controller ~~updates~~ is operable to update management data ~~on~~ of data recorded in the recording medium between the recording and the reproduction.

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22. **(New)** The simultaneous recording and reproduction apparatus according to claim 16, wherein said system controller controls said data recorder and said data reproducer to perform the recording and the reproduction alternately at a predetermined time rate.

23. **(New)** The simultaneous recording and reproduction apparatus according to claim 22, wherein the predetermined time rate is a time determined by a length of a sector, an ECC block or a plurality of ECC blocks.

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